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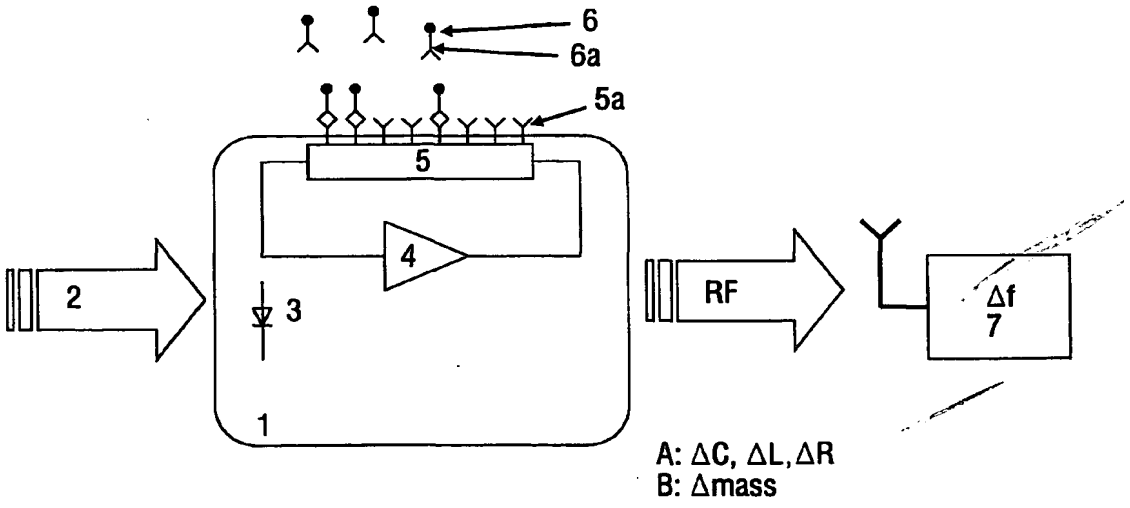
(54) Title: BIOSENSOR WITH RF SIGNAL TRANSMISSION



(57) Abstract: A device (1) and method for measuring and or detecting the presence of biomolecules. The device comprises a resonance circuit arranged to operate and emit a resonance frequency (f). The resonance circuit comprises or is coupled to a sensor element (5) for detecting the binding of biomolecules (6a) to binding sites (5a). The binding of the biomolecules changes a physical property (R, L, C. mass) of the sensor element (5), which in it's turn, either directly when the sensor element forms part of the resonance circuit, or via a coupling of the sensor element to the resonance circuit, the resonance frequency. The change in the resonance frequency is detected. The device comprises a remote power transmission element, such as a photodiode or coil, for providing power to the resonance circuit using light or RF radiation respectively.

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